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AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) An optical recording medium-manufacturing apparatus for manufacturing an optical recording medium by forming a central hole that extends through a disk-shaped substrate and a resin layer formed on one a first side of the disk-shaped substrate, the optical recording medium-manufacturing apparatus a second side of the disk-shaped substrate having a recess, the disk-shaped substrate comprising a positioning hole which has a diameter smaller than a diameter of the recess, a center of the positioning hole being aligned with a center of the recess, comprising:

a cut-forming machine installed at a first processing location and having comprising a cut-forming blade section and a positioning protrusion, the cut-forming blade that forms being configured to cut a circular cut in the resin layer such that the circular cut which has a diameter larger than a diameter of the central hole and surrounds a portion of the resin layer where the circular cut is to be formed, the positioning protrusion having a truncated conical shape and being configured to fit in the positioning hole of the disk-shaped substrate to position the disk-shaped substrate;

a punching machine installed at a second processing location and having comprising a punching blade section and a positioning protrusion, the punching blade having a hollow cylindrical shape with a bottom and a diameter slightly smaller than the diameter of the recess, the punching blade being configured to

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punch the central hole by inserting the punching blade in the recess and
punching the punching blade through the second side of the disk-shaped
substrate and the resin layer, the positioning protrusion of the punching machine
having a truncated conical shape and being configured to fit in the positioning
hole of the disk-shaped substrate to position the disk-shaped substrate with
respect to the punching blade that is pushed into a portion of the disk-shaped
substrate where the central hole is to be formed, from the other side of the disk-
shaped substrate, to thereby punch the central hole;

a transfer mechanism comprising a transfer stage, an indexer, and a
vertical movement mechanism, the transfer mechanism being configured to
transfer that transfers the disk-shaped substrate for which the formation of the
cut has been completed from the first processing location to the second
processing location, the transfer mechanism having a transfer stage that
supports the disk-shaped substrate, and an indexing device that transfers the
disk-shaped substrate on the transfer stage from the first processing location to
the second processing location the transfer stage having an overall disk shape
and comprising a plurality of disk-placing recesses configured to hold the disk-
shaped substrate and located at positions equally distant from a center of the
transfer stage and at circumferentially equal intervals, each of the disk-placing
recesses comprising a bottom having a working hole configured to allow the cut-
forming machine and the punching machine to contact the second side of the
disk-shaped substrate when the disk-shaped substrate is placed in a disk-placing
recess, the indexer being configured to transfer the disk-shaped substrate from
the first processing location to the second processing location when it is placed in

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a disk-placing recess by rotating the transfer stage, the vertical movement mechanism being configured to move the transfer stage upward and downward;
and

a ~~control section~~ controller that controls respective operations of said cut-forming machine, said punching machine, and said transfer mechanism, said ~~control section causing~~ controller controlling the vertical movement mechanism to move the transfer stage upward when the disk-shaped substrate is placed on a disk-placing recess, controlling the indexer to move the disk-placing recess on which the disk-shaped substrate is placed to the first processing location, controlling the vertical movement mechanism to move the transfer stage downward to position the disk-shaped substrate such that the positioning protrusion of the cut-forming machine fits into the recess via the working hole of the disk-placing recess, controlling said cut-forming machine to form the cut in the resin layer, then causing said indexing device of said transfer mechanism to transfer the disk-shaped substrate for which the formation of the cut has been completed from the first processing location to the second processing location, and then causing controlling the vertical movement mechanism to move the transfer stage upward after the cut-forming machine forms the cut in the resin layer, controlling the indexer to move the disk-placing recess on which the disk-shaped substrate is placed to the second processing location, controlling the vertical movement mechanism to move the transfer stage downward to position the disk-shaped substrate such that the positioning protrusion of the punch-forming machine fits into the recess via the working hole of the disk-placing

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recess, and controlling said punching machine to punch the central hole through the disk-shaped substrate ~~for which the formation of the cut has been completed.~~

2. (Withdrawn – Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, comprising a cleaner, ~~that is~~ installed at a third processing location, ~~for cleaning~~ that cleans the central hole and its vicinity by executing at least one of blowing of a gas toward a rim of the central hole of the disk-shaped substrate for which the formation of the central hole has been completed and suction of air in the vicinity of the rim of the central hole,

wherein said ~~control section~~ controller causes said transfer mechanism to transfer the disk-shaped substrate for which the formation of the central hole has been completed from the second processing location to the third processing location, and causes said ~~clear~~ cleaner to clean the central hole and its vicinity.

3. (Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, comprising a feed mechanism that feeds the disk-shaped substrate to be formed with the cut onto the transfer stage under the control of said ~~control section~~ controller, and a delivery mechanism that delivers the disk-shaped substrate for which the formation of the central hole has been completed from the transfer stage, under the control of said ~~control section~~ controller.

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4. (Withdrawn – Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, comprising a ~~substrate-detecting section~~ substrate detector that detects the disk-shaped substrate being transferred over a substrate-detecting location defined between a substrate delivery location from which the disk-shaped substrate for which the formation of the central hole has been completed is delivered from the transfer stage and a substrate feed location from which the disk-shaped substrate to be formed with the central hole is fed onto the transfer stage, and

wherein said ~~control-section~~ controller executes a predetermined error process when said ~~substrate-detecting section~~ substrate detector ~~has detected~~ detects the disk-shaped substrate.

5. (Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, wherein said transfer mechanism is configured to ~~be capable of transferring~~ transfer the disk-shaped substrate to be formed with the cut from a substrate feed location from which the substrate is fed onto the transfer stage, to the first processing location, and ~~capable of transferring~~ transfer the disk-shaped substrate for which the formation of the central hole has been completed to a substrate delivery location from which the substrate on the transfer stage is delivered out of the transfer stage.

6. (Withdrawn – Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, wherein said cut-forming

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machine comprises a first ~~disk-holding-section~~ disk holder that holds the disk-shaped substrate by sucking the ~~other~~ second side of the disk-shaped substrate.

7. (Withdrawn – Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 1, wherein said punching machine includes a second ~~disk-holding-section~~ disk holder that holds the disk-shaped substrate by sucking the ~~other~~ second side of the disk-shaped substrate, and a punched ~~piece-holding-section~~ piece holder that holds a punched piece ~~which is~~ punched off by said punching blade ~~section~~.

8. (Withdrawn – Currently Amended) An optical recording medium-manufacturing apparatus as claimed in claim 7, comprising a collector that collects the punched piece held by said punched ~~piece-holding-section~~ piece holder.